

purchased as a stand-alone product.<sup>274</sup> Additionally, the quality of cable telephony is not equal to the quality of traditional voice service. For instance, packet-switched cable telephony services (like other VoIP services) are subject to significant limitations on 911 dialing and do not have access to backup power in emergencies.<sup>275</sup> Problems with the quality of packet-switched cable telephony and other VoIP services are described more fully in the following section on VoIP.

In addition, cable companies use their own loop plant, installed and financed by companies that for many years had government-sanctioned monopolies for the provision of cable services. Because the cable companies do not lease the incumbent LEC's loop plant to provide services, no hot cut is required to migrate a customer to a cable telephony provider, because a hot cut by definition involves disconnecting the ILEC's loop from the ILEC's switch and connecting it to the CLEC's switch. No such activity occurs with migrations to cable telephony providers. Further, no other carrier can duplicate this entry strategy. Therefore, entry by a cable company is not evidence that economic and operational barriers to entry have been overcome for companies seeking to offer services using the incumbent LEC's loop plant.

Even if the Commission were to conclude that cable telephony is a viable substitute for incumbent LEC local service, it would at best result in a duopoly, not a

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<sup>274</sup> See also *infra* pages 100-101 & nn.292-294.

<sup>275</sup> See, e.g., Alan Breznick, "Backup Power Reemerges as Issue for Cable VoIP Service," Cable Datacom News (Oct. 2003), *available at*: <<http://www.cabledatcomnews.com/oct03/oct03-4.html>>; Scott Moritz, "Net Phone Threat May Ring Hollow for Bells," TheStreet.com (June 25, 2004), *available at*: <[http://www.thestreet.com/\\_tscs/tech/techspecial/10166766.html](http://www.thestreet.com/_tscs/tech/techspecial/10166766.html)> (cable companies often must "wrestle with 911 emergency location capabilities along with federally mandated wiretapping. A more vexing and expensive question is whether to provide an uninterrupted power supply so phones work during electric outages, as Bell lines do.").

competitive marketplace. Actual deployment by just one competitor, particularly when that form of entry cannot be duplicated, as discussed below, would not support a finding of lack of impairment.<sup>276</sup> Economic theory and empirical evidence from the telecommunications industry indicate that a duopoly would not be sufficient to ensure competition for local telephone services. To take an example from the wireless arena, once PCS providers were finally allowed to compete with the incumbent cellular provider duopoly (there were originally a maximum of two commercial wireless providers allowed in each geographic service area), prices declined over fifty percent.<sup>277</sup> The change from two carriers per service area to as many as six or seven resulted in a dramatic increase in competition for the provision of wireless services.

The Commission has consistently recognized that each provider in a duopoly tends to retain significant market power. In fact, the Commission has never relied on the presence of two providers to make a finding that sufficient competition exists for a particular service.<sup>278</sup> For example, the Commission declined to declare AT&T non-dominant in the provision of interexchange services until long-distance customers enjoyed “numerous choices” – including three facilities-based national competitors,

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<sup>276</sup> See Pelcovits Decl. ¶ 15.

<sup>277</sup> *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Service*, Fifth Report, 15 FCC Rcd 17660, 17678-80 (2000); *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Service*, Third Report, 13 FCC Rcd 19746, 19769-70 (1998).

<sup>278</sup> See, e.g., Comments of WorldCom, Inc., CC Docket No. 01-337, at 12 (Mar. 1, 2002).

dozens of regional facilities-based carriers, and hundreds of resellers.<sup>279</sup> Similarly, in the *LEC Classification Order*, the Commission relied upon the presence of several large and well-established interexchange carriers to constrain any exercise of market power by incumbent LECs in the provision of interexchange services.<sup>280</sup>

More recently, the Commission designated the application to transfer licenses associated with the proposed EchoStar/DirecTV merger for a hearing before an administrative law judge based on its conclusion that a duopoly was insufficient to ensure competition and would result in severe harm to consumers.<sup>281</sup> In Chairman Powell's words, the "cornerstone" of the Commission's decision was that:

At best, th[e] merger would create a duopoly in areas served by cable; at worst it would create a merger to monopoly in unserved areas. Either result would decrease incentives to reduce prices, increase the risk of collusion, and inevitably result in less innovation and fewer benefits to consumers. That is the antithesis of what the public interest demands.<sup>282</sup>

A duopoly will not drive prices to competitive levels, produce higher quality telephone service, or, indeed, confer any discernable benefit on mass market customers.

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<sup>279</sup> *Motion of AT&T Corp. to be Reclassified as a Non-Dominant Carrier*, Order, 11 FCC Rcd 3271, ¶¶ 69-72 (1995).

<sup>280</sup> *Regulatory Treatment of LEC Provision of Interexchange Services Originating in the LEC's Local Exchange Area*, Second Report and Order in CC Docket No. 96-149 and Third Report and Order in CC Docket No. 96-61, 12 FCC Rcd 15756, ¶¶ 96-97 (1997) ("*LEC Classification Order*").

<sup>281</sup> *Application of EchoStar Communications Corp., General Motors Corp., and Hughes Electronics Corp. (Transferors), and EchoStar Communications Corp. (Transferee)*, Hearing Designation Order, 17 FCC Rcd 20559, ¶ 280 (2002) (loss of competition by reducing number of viable service providers from three to two or two to one is likely to result in significant harm to consumers, "creating the potential for higher prices and lower service quality, and negative impacts on future innovation").

<sup>282</sup> *See id.*, Statement of Chairman Michael K. Powell.

Moreover, given the barriers to entry to the market for local telecommunications services, it is most likely that the duopoly would remain intact, rather than attracting additional entry. Cable providers gained their position as government-sanctioned monopolies and now seek to extend their networks to offer telecommunications services using their own loops. No other new entrant possesses the unique advantages of having been a government-sanctioned cable monopoly. As such, the underlying causes of impairment persist even if a cable company is offering local service. Thus, cable telephony deployment does not provide probative evidence of lack of impairment.

*b. VoIP*

VoIP does not constitute evidence of actual deployment that would support a finding of lack of impairment. Foremost, VoIP is not a facility but *only a service that can ride over a broadband facility*.<sup>283</sup> The vast majority of consumers currently have a choice of at most two facilities-based broadband providers: the incumbent cable operator or the incumbent LEC. To the extent VoIP is available over cable facilities, those facilities should not be treated as relevant to the impairment analysis for circuit switches, for the reasons described above.<sup>284</sup> To the extent VoIP is available over incumbent LEC facilities, it is not indicative of either intra- or intermodal facilities-based competition

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<sup>283</sup> See *IP-Enabled Services*, Notice of Proposed Rulemaking, 19 FCC Rcd 4863, ¶ 2 n.2 (2004) ("*IP-Enabled Services NPRM*").

<sup>284</sup> To the extent the Commission decides to count cable broadband facilities as satisfying its trigger analysis, such facilities should count *only once*, regardless of how many different VoIP services are, or can be, provided over those facilities. Stated differently, a non-facilities-based company such as Vonage is not an intermodal competitor because it does not control the facility over which its service is provided.

because the incumbent LEC continues to own and control the physical network layer that is providing the service.<sup>285</sup>

The fact that consumers cannot subscribe to VoIP unless they first subscribe to broadband service from, generally, a cable company or incumbent LEC is a major hurdle to VoIP deployment, because broadband is a luxury that many Americans cannot obtain or afford, or choose not to purchase.<sup>286</sup> Currently, only about 21% of U.S. homes have broadband connections.<sup>287</sup> Those broadband connections will be almost exclusively provided by cable companies and incumbent LECs. As previously discussed, the presence of cable telephony does not demonstrate non-impairment, so a VoIP provider on those cable facilities certainly should not count.

VoIP services also suffer from myriad limitations in ubiquity, cost, quality, and maturity that make them no substitute for incumbent LEC voice service.<sup>288</sup> VoIP is still in its infancy and is used only by a minuscule number of subscribers,<sup>289</sup> and it is not

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<sup>285</sup> See, e.g., *IP-Enabled Services NPRM* ¶ 15 (discussing pulver.com and Vonage as examples of VoIP providers that do not own facilities); *id.* ¶ 37 (describing layers-based approach to regulating IP-enabled services).

<sup>286</sup> See, e.g., AT&T News Release, "AT&T CallVantage Service Now Available in Northern Kentucky" (July 19, 2004), *available at*: <<http://www.att.com/news/item/0%2C1847%2C13142%2C00.html>> (stating that despite AT&T's rollout of VoIP in thirty-two states, VoIP "is not a complete substitute for traditional telephone service because it does not serve the needs of millions of Americans who cannot obtain or afford the high-speed Internet connection required for AT&T CallVantage Service").

<sup>287</sup> See Leichtman Research Group, Press Release, "New England and Far West Lead in Broadband Penetration" at 1, *available at*: <<http://www.leichtmanresearch.com/press/070704release.html>> (overall U.S. residential broadband penetration estimated to be 21.3%) ("Leichtman Press Release").

<sup>288</sup> In the *Triennial Review Order*, the FCC did not even discuss VoIP as an intermodal alternative for mass market circuit switching.

<sup>289</sup> See Ken Belson, "Web Phone Service May Have It All, Except Many Users," *The New York Times* (July 25, 2004) (estimated total VoIP subscribership is about 300,000).

likely that it will be widely purchased by mass market customers in the near future. A February 2004 survey showed that only seventeen percent of Americans even have heard of VoIP, and that only three percent of Internet users have considered adopting VoIP technology in the home.<sup>290</sup> Further, as described above, only about 21% of U.S. households subscribe to the broadband service that is a prerequisite to purchasing VoIP service.<sup>291</sup>

The cost of VoIP service also is not necessarily comparable to that of traditional landline voice service. Although the cost of VoIP packages ranges from roughly \$20 to \$40 per month,<sup>292</sup> those prices do not include the cost of broadband Internet service, which typically costs between \$30 and \$50 per month.<sup>293</sup> When the latter costs are

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customers); John B. Horrigan and Allen Hepner, Pew Internet & American Life Project, "Data Memo" at 3 (June, 2004) ("Pew Report"), *available at*: <[http://www.pewinternet.org/pdfs/PIP\\_VOIP\\_DataMemo.pdf](http://www.pewinternet.org/pdfs/PIP_VOIP_DataMemo.pdf)> (according to Gartner, Inc., at the end of 2003 there were 150,000 U.S. VoIP subscribers).

<sup>290</sup> Pew Report at 1.

<sup>291</sup> Leichtman Press Release at 1.

<sup>292</sup> For example, unlimited residential local and long distance within the U.S. and Canada is offered by Vonage for \$24.99 per month, plus the price of your broadband Internet connection, and by AT&T for \$29.99 per month under its CallVantage service. *See* <<http://www.vonage.com/>>; <<http://www.att.com>>. Many VoIP companies also charge an initial activation fee and shipping costs for adapters. For instance, Vonage charges an activation fee of \$29.99 plus shipping costs of \$9.95; Net2Phone charges \$99 for its adapter; and Verizon charges a \$39.95 activation fee plus \$8 in shipping costs. *See* Andrea Coombes, "Hold those calls: Quality issues limit Internet-phone appeal," CBS.MarketWatch.com (Aug. 11, 2004), *available at*: <<http://cbs.marketwatch.com/news/story.asp?dist=&param=archive&siteid=mktw&guid=%7BBC384EC9%2D128D%2D4A65%2D8539%2D37D970857C83%7D&garden=&minisite=>>> ("Hold Those Calls").

<sup>293</sup> Cablevision's Optimum Voice is \$34.95 per month and requires Optimum Online, which costs \$44.95-49.95 per month. *See* "Optimum Voice," *available at*: <<http://www.optimumvoice.com>>; "Optimum Online - Pricing," *available at*: <<http://www.optimumonline.com/index.jhtml;jsessionid=HNDVKW0B5GWPCCLASDCF3QKBMCIOI5G?pageType=pricing>>. Time Warner Cable offers (in Cumberland County, Maine) Digital

factored in, VoIP service can be more expensive than local and long-distances packages for traditional calling.<sup>294</sup>

VoIP is subject to a number of quality limitations that do not apply to traditional landline calling. Quality issues include latency (delay) and uneven sound if the broadband connection is being used for another purpose (such as visiting a web site) while simultaneously making a VoIP call.<sup>295</sup> Other problems are that VoIP phone numbers are not available for directory listings and 411 dialing is often not available.<sup>296</sup>

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Phone service for \$39.95 per month for customers with High Speed Data or Digital Cable, or \$44.95 per month for customers with Basic Cable Service. Voicemail is \$3.95 additional. Its digital cable offering known as "DIGIPiC 1000" is \$59.12 per month, and DIGIPiC 1000 with Digital Phone is \$99.07. See "Rates & Packages – Cumberland County," available at: <<http://www.timewarnercable.com/maine/products/rates/cumberland.html>>. Covad's residential broadband service is priced at \$39.95 per month for 1.5 Mbps/128 kbps; \$64.95/month for 1.5 Mbps/384 kbps; or \$99.95/month for 3.0 Mbps/768 kbps. See "Covad Residential Offerings," available at: <<http://www.covad.com/residential/index.shtml>>. Verizon's residential DSL is \$29.95/month for 1.5 Mbps/384 Kbps (plus the price of a phone line). See <<http://www22.verizon.com/ForHomeDSL/channels/dsl/forhomedsl.asp?ID=Res>>.

<sup>294</sup> In Washington D.C., for example, Verizon offers its "Freedom" package, which includes unlimited local, regional and long distance in the U.S. and Canada, voicemail and four features, for \$49.95/month. See "Verizon Freedom Packages," available at: <[http://www22.verizon.com/foryourhome/sas/res\\_fam\\_InternetBund.asp?ID=PKGFLD&redirecthit=1&redirectedTo=/Foryourhome/sas/res\\_fam\\_InternetBund.asp&referrer=/Foryourhome/sas/varStateSelector.asp](http://www22.verizon.com/foryourhome/sas/res_fam_InternetBund.asp?ID=PKGFLD&redirecthit=1&redirectedTo=/Foryourhome/sas/res_fam_InternetBund.asp&referrer=/Foryourhome/sas/varStateSelector.asp)>. SBC offers an "All Distance" package, including unlimited local and nationwide long distance, voicemail and three features, for \$48.95/month in California. See "SBC Connections," available at: <[http://www02.sbc.com/Products\\_Services/Residential/Catalog/1,,0--1-3-0,00.html](http://www02.sbc.com/Products_Services/Residential/Catalog/1,,0--1-3-0,00.html)>; see also David Pogue, "Cut-Rate Calling, By Way of the Net," The New York Times, G1 (April 8, 2004) ("Cut-Rate Calling") (VoIP packages typically cost \$20 to \$40, not including broadband Internet service; SBC offers unlimited calling with 11 features for \$55).

<sup>295</sup> See, e.g., Pew Report at 4; *Cut-Rate Calling*; see also Susan Polyakova, "VoIP Power-Related Outage Reporting Requirement Seen as Possibility," Communications Daily at 3 (Aug. 16, 2004) (quoting Verizon official as recently stating that "there is no VoIP system that can offer the same quality as wireline.") ("*VoIP Power-Related Outage*").

<sup>296</sup> *Cut-Rate Calling*.

Another quality issue, dropped calls, is a particular problem for companies such as Vonage that do not control their own networks.<sup>297</sup> Moreover, VoIP service is only as good as the subscriber's broadband connection: "If your network hiccups while sending a document or receiving a big movie file, it means a delay that most people would ignore or not even notice. But delays on phone calls are harder to tolerate."<sup>298</sup> Such problems make VoIP calling "a hit-or-miss proposition. Some calls will be clear, others like a bad cell phone call and some may get dropped entirely."<sup>299</sup>

A serious quality problem associated with certain VoIP providers concerns 911. For example, Verizon does not provide traditional 911 service on its VoIP service, and considers it such a concern that it demands in capital letters on its web site that VoIP customers, "MUST MAINTAIN AN ALTERNATE MEANS OF REQUESTING EMERGENCY SERVICES."<sup>300</sup> Verizon warns that with its VoIP 911 service, "[t]he individual answering the call may not be able to call you back or find your location if the call is unable to be completed, is dropped or disconnected, or if you are unable to tell them your phone number and physical location and/or if the Service is not operational for

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<sup>297</sup> Ken Belson, "Web Phone Service May Have It All, Except Many Users," *New York Times* (July 25, 2004) ("Vonage uses five different networks to connect its calls, raising the likelihood of interruptions.").

<sup>298</sup> Ellen Simon, "Future Cloudy for Internet Voice Service," *AP* (July 20, 2004), available at: <<http://cnews.canoe.ca/CNEWS/TechNews/BizTech/2004/07/05/526055.html>>; see also Ben Charny, "VoIP's Broadband Bottleneck," *CNet News.com* (Apr. 5, 2004), available at: <[http://news.com.com/VoIP%27s+broadband+bottleneck/2100-7352\\_3-5184599.html](http://news.com.com/VoIP%27s+broadband+bottleneck/2100-7352_3-5184599.html)> (some residential Internet service providers currently cannot guarantee the bandwidth needed for glitch-free calls).

<sup>299</sup> *Hold Those Calls*; see also *VoIP Power-Related Outage* (describing "nationwide" service disruptions recently experienced by Vonage customers).

<sup>300</sup> Verizon VoiceWing FAQs, available at: <<https://www22.verizon.com/ForYourHome/VOIP/FAQ.aspx>> (capitalization in original).



any reason.”<sup>301</sup> It further cautions that its 911 service “will not function during a power outage.”<sup>302</sup> In addition to the fact that the cause of a power outage – such as a tornado or hurricane – may be the very reason a person is compelled to call 911, some power outages last for days.<sup>303</sup>

Finally, VoIP lacks the maturity of traditional voice landline service. As the Commission recently observed, VoIP services are still in the “early stages” of “development and deployment,” and as a result such services “are fast-changing and likely to evolve in ways that [the Commission] cannot anticipate.”<sup>304</sup> According to a New York Times report, for instance, VoIP services currently are particularly susceptible to bugs, viruses, worms, and hackers.<sup>305</sup> It is possible that such problems will be corrected or minimized as VoIP becomes a more mature technology. Until such time, however, consumers – and particularly businesses – will be wary of relying exclusively on VoIP for voice communications.

*c. Trigger Analysis*

Properly implemented, the trigger test can serve as a proxy for a full-scale analysis of the economic and operational conditions facing competitors and should result

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<sup>301</sup> *Id.*

<sup>302</sup> *Id.*

<sup>303</sup> In September 2003, Hurricane Isabel caused power outages that lasted up to ten days in parts of Maryland. See Tim Craig, “Charley May Test Pepco’s Readiness,” Washington Post, B01 (Aug. 14, 2004). As a result of these and other service quality issues, VoIP typically has not been marketed or purchased as a replacement for primary line circuit-switched service.

<sup>304</sup> *IP-Enabled Services NPRM* ¶ 53.

<sup>305</sup> CTIA Daily News (Aug. 2, 2004) (citing New York Times); see also *Hold Those Calls*.

in the same outcome that an in-depth examination of those barriers would produce. In order to ensure that the results would be as robust as a full-blown impairment analysis, it is critical that the Commission apply the triggering analysis, and in particular refine the minimum qualifications of a triggering company, as discussed below.

MCI actively participated in all of the state proceedings to implement the *Triennial Review Order*, each of which included a presentation in which the incumbent attempted to demonstrate that the switching self-provisioning trigger had been met. As those cases proceeded, the data that were produced and examined made clear that a number of the companies proffered by the incumbent LECs as part of their attempt to show that the triggers had been met were not in fact actively serving mass market customers. For example, some carriers were offering service to small business, but not residential, customers. Others were not marketing their service, or providing only a *de minimis* number of loops. Still other carriers were affiliated with an incumbent, or were not offering a comparable local service offering. This close examination of the data demonstrated that, unlike the triggers for high-capacity loops and transport (which are effectively exercises in ensuring the data are accurate, but do not involve policy determinations), use of a trigger analysis for switching requires additional determinations about which companies should be counted for purposes of the triggers. In furtherance of this effort, MCI developed a reasonable and conservative approach to the switching trigger that reflects a view of the policy determinations that will produce a reasonably accurate picture of actual deployment. The specifics of this approach, along with the

results of the trigger analysis for California, are described in the declaration of Terry Murray.<sup>306</sup>

Each step along the way, or “screen,” as discussed below, is intended to weed out companies that are not actively serving the mass market in a given market in a manner that demonstrates that barriers to entry have been overcome. This section first describes the reason for each screen, and then discusses the application of those screens to a particular set of data from the California proceeding.

i. Triggering companies must have or use separate switches

Companies must be “using or offering their own separate switches” to count for purposes of the self-provisioning trigger.<sup>307</sup> This requirement is necessary to ensure that the self-provisioning trigger counts only those carriers that are truly using their own switches in a particular market. In the absence of such a requirement, the Commission would have no way of screening out carriers that clearly have not deployed their own switches – e.g., carriers that use the switch of either the incumbent LEC or of another alternative provider that has already been counted under the trigger analysis.

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<sup>306</sup> Ms. Murray’s declaration contains confidential information and is being filed concurrently with these comments under separate cover pursuant to the protective order in this docket. See Declaration of Terry Murray (“Murray Decl.”), appended to *Ex Parte* Letter from A. Renée Callahan, counsel for MCI, to Marlene H. Dortch, FCC, WC Docket No. 04-313 (Oct. 4, 2004).

<sup>307</sup> *Triennial Review Order* ¶ 499.

ii. Affiliates of an incumbent LEC cannot count toward the self-provisioning trigger

Companies should only count toward the self-provisioning trigger in a particular market if that carrier is unaffiliated with the incumbent LEC.<sup>308</sup> In addition to disqualifying carriers that are affiliated with the incumbent LEC in the relevant wire center, this requirement should also serve to exclude: (1) affiliates of incumbent LECs that operate in an adjacent geographic area and expand into another incumbent LEC's market; and (2) affiliates of incumbent LECs that have expanded out-of-region due to merger or other regulatory commitments.

Adjacent incumbent LEC affiliates have advantages unavailable to other competitors, and thus properly are excluded. For example, they have name recognition as local carriers, as well as switches, transport facilities, and operational support systems that have already been deployed to support their incumbent services. The ability of such affiliates to expand along the margins of another territory says little about the ability of a competitive LEC, which has none of these advantages, to enter the market successfully using UNE-L.

TDS Metrocom, an ILEC affiliate cited as a trigger CLEC by SBC in Michigan and elsewhere illustrates this point. TDS's CLEC line of business is deliberately linked to and leveraged off of its ILEC operations. TDS describes the strength of its CLEC operations as follows:

By carefully choosing its areas of operations near [ILEC] TDS Telecom's existing operations, TDS Metrocom is able to leverage TDS Telecom's management and process infrastructures. TDS Telecom provides shared services for

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<sup>308</sup> *Id.*

functions such as billing, accounting, regulatory affairs and human resources, allowing TDS Metrocom to focus its own resources on marketing, selling and serving the customer – critical areas to support rapid growth.<sup>309</sup>

Although TDS does apparently target mass market customers in certain areas, it does so only where it can use its existing ILEC resources to maximum advantage.

In addition, incumbent LECs that offer service in an out-of-region market pursuant to a merger or other regulatory condition should be excluded. For example, FCC approvals of the mergers of SBC and Ameritech, and Verizon (then Bell Atlantic) and GTE were conditioned upon their commitments to offer local service in out-of-region markets.<sup>310</sup> The fact that SBC or Verizon subsequently entered an out-of-region market thus is not indicative of whether entry was in fact profitable, or whether entry likely would be profitable for another competitive LEC. Indeed, the fact that neither SBC nor Verizon subsequently has expanded its out-of-region entry beyond the letter of its legal commitment supports the opposite conclusion – that such entry is not profitable.

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<sup>309</sup> Telephone and Data Systems, Inc. (“TDS”), Annual Report at 4 (2002); *see also* Remarks of Ted Carlson, TDS President and Chief Executive Officer, TDS Annual Meeting, slide 10 (May 23, 2002), *available at*: <<http://www.teldta.com/investor/invpresentation05232002.htm>> (“Metrocom is being grown aggressively using our distinctive formula for success – that is leveraging the strengths of our well established ILEC business to create a high quality, cost effective sales offering very quickly in the markets we choose to enter.”).

<sup>310</sup> *Applications of Ameritech Corp., Transferor, and SBC Communications Inc., Transferee, For Consent to Transfer Control of Corporations Holding Commission Licenses*, 14 FCC Rcd 14712, Appendix C, ¶ 59 (1999) (condition XXI) (committing to enter 30 out-of-region markets); *Application of GTE Corporation and Bell Atlantic Corporation for Consent to Transfer Control*, 15 FCC Rcd 14032, Appendix D, ¶ 43 (2000) (condition XVI) (agreeing to spend at least \$500 million on out-of-region entry).

- iii. Triggering companies must not be affiliated with a competitive LEC that has already been counted

In order to avoid double counting, the Commission should reaffirm its finding that carriers affiliated with one another, but not the incumbent, count as a single carrier for purposes of the trigger.<sup>311</sup>

- iv. A triggering company must be actively providing service to the mass market

For purposes of the trigger analysis, “the identified competitive switch provider should be actively providing voice service to mass market customers.”<sup>312</sup> To ensure that the trigger analysis acts as a proxy for whether customers have an actual competitive alternative for local voice, the Commission should retain this requirement. Evidence that a triggering company is actively soliciting new customers and has, in fact, added new customers in the relevant market within the recent past, for example, the past few months, would be relevant to this review.

- v. A triggering company must be likely to continue to provide service to the mass market

Triggering carriers must be “likely to continue to [provide service].”<sup>313</sup> As the FCC recognized, carriers that have filed a notice to terminate service in the given market should not count for purposes of the triggers.<sup>314</sup> Similarly, to the extent that there is other evidence demonstrating that a company no longer intends to be an active participant or is

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<sup>311</sup> *Triennial Review Order* ¶ 499. The FCC relied on a definition of affiliation found in Section 3 of the Act (47 U.S.C. § 153(1)). *Id.* ¶ 499 n.1550.

<sup>312</sup> *Id.* ¶ 499.

<sup>313</sup> *Id.* ¶ 500.

<sup>314</sup> *Id.* ¶ 500 n.1556.

otherwise likely to cease offering service in the near future (for example, because the company is not adding customers), the Commission should eliminate that company as a potential trigger.

- vi. Triggering companies must offer service to all or nearly all of the relevant market, including residential customers

In order to count as a triggering carrier, the Commission should find that a carrier must hold itself out as providing local exchange service to all, or virtually all, mass market customers. Stated differently, a triggering carrier must be providing facilities-based service not just to business customers, but also to residential customers within a given market.

The vast majority of mass market customers are residential customers. Therefore, it would be a perversion of the statute to apply the triggers (or another impairment test) in a manner that concludes there is actual deployment of competitive switching to serve the mass market if only business customers, but not residential customers, are being served by competitive carriers using their own switches. MCI's experience with the trigger analyses in the state proceedings, as well as its own experience in marketing to small business and residential customers, reveals that there are several reasons that the Commission should decline to conclude that *residential* customers can be served via competitive switches based on evidence that *business* customers are being served via competitive switches.<sup>315</sup>

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<sup>315</sup> It is highly unlikely that any carrier serving residential customers via UNE-L would not also serve small business customers. The Commission need not be concerned about that particular scenario.

An analysis of the data offered by the BOCs in the state proceedings showed that the bulk of the lines identified as “mass market” lines served by CLECs were in fact DS0 loops provided to larger business customers, typically incidental to an enterprise-only business plan or in other special circumstances.<sup>316</sup> For example, competitive LECs may use UNE-L to provision a fax line for a large business customer, or to extend customized services to the residence of a business executive.<sup>317</sup> Likewise, a competitive LEC may supplement DS1-based service with a few voice-grade loops, if doing so is cheaper than adding a full DS1 of capacity, or if the customer has multiple locations.<sup>318</sup> The economics of serving such customers are, of course, quite different from the economics of serving a mass market customer that obtains the same number of DS0 loops, but does not buy any of the higher-capacity, more expensive services.<sup>319</sup> The ability of competitors to overcome entry barriers in the former case (which may depend on economies of scale and scope that can be achieved only in serving larger business customers) does not prove anything about the ability of competitors to overcome entry barriers to serve mass market customers.

While small business customers are not monolithic, as a group, they have different characteristics than residential customers, which result in different expectations with respect to the anticipated revenue stream. Small business customers are more likely to sign annual contracts, in contrast to residential customers, who almost never have

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<sup>316</sup> Declaration of Terry L. Murray, attached to Letter from Curtis L. Groves, MCI, to Marlene H. Dortch, FCC, WT Docket No. 04-313, ¶¶ 28-33 (Oct. 4, 2004) (“Murray Decl.”).

<sup>317</sup> Pelcovits Decl. ¶ 49; Murray Decl. ¶ 29.

<sup>318</sup> Pelcovits Decl. ¶ 49; Murray Decl. ¶ 27.

<sup>319</sup> Murray Decl. ¶¶ 28-29; *see also id.* ¶¶ 25-27, 30-33.



contracts.<sup>320</sup> The churn rate for residential customers is quite high,<sup>321</sup> so that the average “life” of a residential customer is substantially shorter than the average “life” of a business customer with a contract. The result is that for the residential customer to be profitable, the non-recurring costs of serving that customer must be recovered in a shorter period of time than would be the case for a business customer. The expected revenue stream would have to exceed the expected costs over the life of the customer. Yet, the expected revenue stream for residential customers tends to be lower than that for business customers, who often purchase additional services not purchased by residential customers, such as data services, yellow page listings, call routing, and customized billing.<sup>322</sup> Business customers thus generate relatively higher revenues (compared to residential customers) over a longer period of time, and it therefore may be profitable to serve business customers in wire centers where it would not be profitable to serve residential customers.<sup>323</sup> Because of these different characteristics, evidence that a competitor is serving small business customers in a given wire center does not prove that it is profitable to serve residential customers in that market.<sup>324</sup>

Given the time constraints attending this particular analysis of impairment, and the attendant need to work with the data that is currently available, it would be reasonable

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<sup>320</sup> Cf. *Triennial Review Order* ¶¶ 237, 128 & n.432 (noting that there is no evidence that ordinarily consumers would accept long-term contracts, and discussing similarities and differences between residential and very small business customers).

<sup>321</sup> Huyard Decl. ¶ 16; *Triennial Review Order* ¶ 471 (discussing evidence of high churn rates among residential consumers).

<sup>322</sup> *Triennial Review Order* ¶¶ 127 n.432, 128.

<sup>323</sup> Pelcovits Decl. ¶ 48.

<sup>324</sup> *Id.* ¶ 49.

for the Commission not to attempt to parse through the various types of business lines, but to instead use the number of carriers serving residential customers as a proxy for determining the number of carriers serving “mass market” customers. This approach has the benefit of guarding against the risk that, absent such a requirement, the trigger analysis will result in a finding of no impairment in a given market, even though not a single residential customer can purchase service from a competitive carrier. It also permits the Commission to develop in a future proceeding a more detailed analysis of types of business customers served by UNE-L, in order to determine whether unbundled switching should be available for CLECs seeking to serve small business customers.

Alternatively, the Commission could assess impairment separately for small business and residential customers. With respect to residential customers, the conclusion would be the same: the data will show that carriers are impaired on a nationwide basis without access to unbundled switching. With respect to small business customers, however, the task is more complicated. As noted, many of the lines identified during the state proceedings as mass market lines were in fact DS0 loops used to provide service to larger business customers.<sup>325</sup> Because these loops are not probative of a carrier’s ability to serve small business customers, the Commission would have to obtain additional information regarding a customer’s identity in order to remove such loops from its analysis.<sup>326</sup> As with residential customers, failure to scrub the data in this way would risk a finding of non-impairment based on an appearance of competition, when in fact small business customers have no alternatives to the incumbent LEC.

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<sup>325</sup> Murray Decl. ¶¶ 24-27.

<sup>326</sup> Murray Decl. ¶¶ 29-33 & n.23.

vii. Intermodal carriers cannot count as triggering companies unless they provide a service that is comparable in cost, quality, and maturity to the incumbent LEC's service

As the *USTA II* court confirmed, the impairment analysis adopted in the *Triennial Review Order* requires the Commission to consider the availability of intermodal alternatives such as cable and wireless.<sup>327</sup> As discussed earlier, entry by wireless carriers and cable providers, as well as VoIP providers, is not evidence of actual deployment of the type that would lead one to conclude that requesting carriers are not impaired without unbundled access to incumbent LEC switching.

The *Triennial Review Order* made clear that consideration of intermodal alternatives must take into account the extent to which such services "are comparable in cost, quality, and maturity to incumbent LEC services."<sup>328</sup> Based on these factors, the Commission should conclude, as it did in the *Triennial Review Order*, that it is not appropriate to count wireless providers (including fixed wireless) as triggering companies.<sup>329</sup> On remand, cable providers similarly should be excluded. As discussed above, cable telephony is not comparable in terms of cost, quality, maturity and ubiquity, and is not the type of actual deployment that supports a finding of lack of impairment.<sup>330</sup>

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<sup>327</sup> *USTA II*, 359 F.3d at 572-573.

<sup>328</sup> *Triennial Review Order* ¶¶ 97, 499 n.1549.

<sup>329</sup> *Id.* ¶ 310 (fixed wireless not deployable on a mass market scale), ¶ 499 n.1549 ("CMRS does not yet equal traditional incumbent LEC services in its quality, its ability to handle data traffic, its ubiquity, and its ability to provide broadband service to the mass market").

<sup>330</sup> To the extent the Commission decides to count cable broadband facilities as satisfying its trigger analysis, as discussed above, such facilities should count only once, regardless of how many different VoIP services are, or can be, provided over those facilities.

Moreover, cable companies have their own loops, and do not require hot cuts, and thus entry by a cable company is not probative of whether it is possible to serve residential customers via UNE-L.

- viii. Triggering companies must serve at least one percent of the relevant market to demonstrate that they have overcome barriers to entry

For the trigger test to have meaning, a triggering company must show that it has overcome operational and economic barriers to UNE-L-based entry. Carriers that serve less than one percent of the market do not provide such evidence. To the contrary, the FCC found that it is evidence of impairment, not non-impairment, “if the marketplace evidence shows that new entrants have not *widely deployed* a particular kind of facility.”<sup>331</sup>

During the *Triennial Review* proceeding, incumbent LECs argued that the fact that competitors were serving three percent of residential customers via their own switches supported a finding that competitive LECs were not impaired without access to unbundled switching.<sup>332</sup> The Commission disagreed, finding that “[c]ompetitive carriers have shown that, although they have used hot cuts to serve certain small segments of the market, no competitive carrier relies on hot cuts to offer service to *significant numbers* of customers served by voice grade loops.”<sup>333</sup> As an administratively feasible method of ensuring that carriers have overcome barriers to entry, for purposes of the trigger

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<sup>331</sup> *Triennial Review Order* ¶ 96 (emphasis added).

<sup>332</sup> *Id.* ¶ 438.

<sup>333</sup> *Id.* ¶ 468 (emphasis added).

analysis, the FCC should count only those carriers that serve at least one percent of the customers in a relevant market.

Competitive LECs that serve fewer than one percent of the customers in a market demonstrate nothing about whether impairment with respect to hot cuts has been overcome, much less that the other operational and economic barriers to entry identified above have been surmounted. Absent such a requirement, the self-provisioning triggers could be met by three carriers serving less than the three percent of the market the Commission previously found insufficient to justify a national finding of non-impairment. Further, because the one percent screen looks at the cumulative market penetration for each carrier over time, it is a conservative approach. Under the test, a carrier that has taken two or more years to achieve its one percent market share would count as a triggering carrier, even though its experience with hot cut activity likely did not mirror the high-volume, long-duration hot cut activity that would occur if UNE-P were no longer available and all mass market customers had to be served via UNE-L.<sup>334</sup>

As noted earlier, competitive LECs often provide switch-based services to enterprise customers in special circumstances. Similarly, carriers may serve a limited number of UNE-L lines on a trial or test basis.<sup>335</sup> Yet none of these situations provides evidence that “multiple, competitive supply”<sup>336</sup> to mass market customers is feasible in a

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<sup>334</sup> Murray Decl. ¶ 44; *Triennial Review Order* ¶ 468. Indeed, at least one incumbent LEC, SBC, implicitly acknowledged during the state proceedings the need to screen out carriers that serve so few lines that they provide no evidence of impairment. Murray Decl. ¶ 15 & n.15 (noting that SBC had voluntarily eliminated carriers that serve fewer than five lines from its list of triggering companies during the state cases).

<sup>335</sup> Murray Decl. ¶ 42.

<sup>336</sup> See *Triennial Review Order* ¶ 506.

given wire center. Imposing a one percent requirement would ensure that such carriers would not result in a finding that a competitive LEC had overcome the operational and economic barriers to serving mass market customers when it had, in fact, not done so.<sup>337</sup> Evidence that CLECs are serving less than 1% of the market, moreover, is evidence that barriers remain.

#### ix. Application of Triggers

As noted, the local switching self-provisioning trigger is designed to act as a proxy for the presence of operational and economic barriers to entry. If properly applied, the trigger test should result in the same outcome that examination of the operational and economic barriers would produce. Thus, if there are insurmountable operational and economic barriers to serving the mass market using UNE-L in a given wire center, then the trigger test should find that there are two or fewer competitors offering service to residential and business customers in that market. By the same token, the switching trigger should result in a finding of non-impairment where economic and operational barriers have been overcome. Based on the operational and economic barriers to entry discussed above, one would expect that, in the vast majority of wire centers, competitors are impaired in their ability to serve mass market customers without unbundled switching

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<sup>337</sup> Such a requirement is also consistent with prior court precedent recognizing the importance of a *de minimis* threshold. As the Supreme Court has made clear, the *de minimis* principle “is part of the established background of legal principles against which all enactments are adopted, and which all enactments (absent contrary indication) are deemed to accept.” *Wisconsin Dep’t of Revenue v. Wrigley Jr., Co.*, 505 U.S. 214, 231 (1992); *see also Sprint Spectrum v. Willoth*, 176 F.3d 630, 643-44 (2d Cir. 1999) (holding that denying applications for additional wireless towers, even though there would be limited gaps in wireless telephone coverage, did not amount to a prohibition of service since the gaps in coverage would be *de minimis*); *Triennial Review Order* ¶ 94.

and that a properly implemented trigger test thus would not be met. As discussed below, that is precisely what the data from the state switching impairment proceedings show.

Much of MCI's analysis was based on confidential data that can only be used for purposes of the state impairment proceedings. The California commission, however, recently issued an order authorizing carriers to use state data in the instant proceeding, thus permitting MCI to illustrate the results of applying the trigger analysis in California.<sup>338</sup> As demonstrated below, once the triggers were applied in a rational, meaningful fashion, there was not a single wire center – even in the largest cities in SBC's and Verizon's territories – in California in which three or more competing carriers were actively serving the mass market. Stated differently, nowhere in California did a single residential customer have a real and current choice among three facilities-based local exchange providers leasing loop plant from the incumbent. In a situation in which not a single residential customer has such a choice, a finding of non-impairment based on the triggers would not be supportable.

As explained in the Murray Declaration, MCI developed a spreadsheet tool that permits analyses of wire center-specific data.<sup>339</sup> As noted, the spreadsheet tool employs sequential "screens" to determine whether a carrier qualifies as a trigger company. Those screens inquire whether the carrier:

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<sup>338</sup> Several other states recently have taken similar actions, but many state commissions have not amended protective orders that prohibit use of the confidential data outside of the state impairment proceedings. MCI has previously requested that the Commission ask the states to file this data in this docket. *See* Letter from Curtis L. Groves, MCI, to Marlene H. Dortch, FCC, CC Docket No. 01-338 (July 8, 2004). In light of the recent activity by state commissions to amend their protective orders, MCI expects to be able to present the trigger analysis for additional states.

<sup>339</sup> *See* Murray Decl. ¶ 45.

Screen 1	has or uses its own switches;
Screen 2	is affiliated with an incumbent LEC;
Screen 3	is affiliated with another competitive LEC that has already been counted;
Screen 4	is actively providing service;
Screen 5	is likely to continue providing service;
Screen 6	is able to provide service to nearly all mass market users in the market, including both residential and small business customers;
Screen 7	is offering a service comparable in cost, quality, and maturity to the incumbent LEC's service; and
Screen 8	has overcome economic and operational barriers to entry, as evidenced by the fact that the carrier serves at least one percent of the market.

In California, SBC and Verizon argued that seven MSAs met the self-provisioning trigger for switching.<sup>340</sup> SBC identified thirteen potential triggering carriers: Advanced Telecom Group ("ATG"), Allegiance, AT&T, Comcast, Cox, ICG, MCI, MPower, RCN, TelePacific, Telscape, XO and Xspedius.<sup>341</sup> Verizon identified ten companies, all but one of which duplicated SBC's list: Allegiance, AT&T, Comcast, Cox, MCI, MPower, SBC Telecom, Telepacific, Telscape, and XO.<sup>342</sup> A summary of the application of the screens to these carriers appears below:

Screen 1	No carriers were excluded from the trigger count based on this screen.
Screen 2	SBC Telecom is affiliated with an incumbent LEC, and thus is excluded under this screen.

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<sup>340</sup> *Id.*, Tables 2 & 3.

<sup>341</sup> *Id.* ¶ 50.

<sup>342</sup> *Id.*



- Screen 3 Two carriers, Allegiance and XO, are affiliated with each other and thus are combined to count as one company.
- Screens 4-5 Two carriers, ICG and Telepacific, are not accepting new mass market UNE-L customers in California. A third carrier, Xspedius, is not certificated in California and does not offer local service in that state.
- Screen 6 Seven of the fourteen potential triggering carriers cumulatively identified by SBC and Verizon do not offer service to residential customers using UNE-L: ATG, Allegiance-XO, AT&T, ICG, MCI, and SBC Telecom.
- Screen 7 Because cable service is not comparable in cost, quality and maturity, Comcast,<sup>343</sup> Cox, and RCN are excluded under this screen.
- Screen 8 Eight of the fourteen companies identified provide service to less than one percent of the market, and thus are excluded under this screen: ATG, Allegiance-XO, AT&T, ICG, MCI, MPower (with the exception of certain wire centers identified in the confidential material), and SBC Telecom.<sup>344</sup>

As an initial matter, the incumbent LECs' inclusion of competitive LECs affiliated with one another, as well as with an incumbent LEC, demonstrates that the incumbent LECs' data cannot be accepted at face value and must be probed. Further, as the attached maps demonstrate, once the data has been analyzed, there is no wire center in California in which there are three or more companies unaffiliated with an incumbent LEC offering service to mass market customers.<sup>345</sup> The principal reason for this is that carriers are not using UNE-L to offer service to residential customers. Entry by cable companies is not probative of whether additional companies will be able to enter, because cable companies have unique advantages, including their own loops, and their history as

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<sup>343</sup> Even if Comcast did provide a comparable service, it appears that it would not meet screen 1's switch ownership requirement. *See* Murray Decl. ¶ 57.

<sup>344</sup> *Id.* ¶¶ 52-81.

<sup>345</sup> *Id.*, Exhibit 6.